

## CLAIMS

What is claimed is:

- 1 1. A method comprising:  
2 receiving a first identification (ID) at a computer system from a server via  
3 a transmission medium;  
4 comparing the first ID with a second ID stored at a first analog front end  
5 coupled to the computer system; and  
6 certifying a first software-defined radio for operation if the first ID  
7 matches the second ID.
- 1 2. The method of claim 1 further comprising disabling the first software-  
2 defined radio if the first ID does not match the second ID.
- 1 3. The method of claim 1 further comprising storing the first ID in a memory  
2 device within a baseband unit at the computer system prior to comparing the  
3 first ID with the second ID.
- 1 4. The method of claim 1 further comprising downloading a protocol  
2 corresponding with the first software-defined radio.
- 1 5. The method of claim 4 wherein the first ID and the wireless protocol are  
2 received as a component of a signed manifest.
- 1 6. The method of claim 5 further comprising:  
2 validating the signed manifest; and  
3 executing the protocol at a baseband unit if the manifest is validated.
- 1 7. The method of claim 1 further comprising:

receiving a third identification (ID) at the computer system from the  
server via the transmission medium;  
comparing the third ID with a fourth ID stored at a second analog front  
end coupled to the computer system; and  
certifying a second software-defined radio for operation if the third ID  
matches the fourth ID.

8. A computer system comprising a first software-defined radio including:  
a baseband unit; and  
a first analog front-end coupled to the baseband unit;  
the first software-defined radio being certified for operation by  
authenticating a first identification (ID) received at the baseband unit with a  
second ID stored at the first analog front end.

9. The computer system of claim 8 further comprising:  
an input/output (I/O) bus coupled to the baseband unit; and  
a network controller coupled to the I/O bus.

10. The computer system of claim 9 wherein the first ID is received from a  
server computer via a transmission medium coupled to the network controller.

11. The computer system of claim 10 wherein a protocol corresponding to the  
first software-defined radio is also received from the server computer.

12. The computer system of claim 9 wherein the baseband unit comprises:  
an I/O interface coupled to the I/O bus;  
a digital signal processor (DSP) coupled to the I/O interface; and  
a second bus coupled to the DSP.

13. The computer system of claim 12 wherein the baseband unit further

comprises:

- a volatile memory coupled to the DSP; and
- a non-volatile memory coupled to the DSP.

14. The computer system of claim 12 wherein the analog front end comprises:  
analog-digital/digital-analog (AD/DA) conversion logic coupled to the  
second bus;  
modulation logic coupled to the AD/DA conversion logic;  
a transceiver coupled to the modulation logic; and  
an antenna coupled to the transceiver.

15. The computer system of claim 14 wherein the analog front end comprises  
a non-volatile memory that stores the second ID.

16. The computer system of claim 12 further comprising a second software-  
defined radio including:  
the baseband unit; and  
a second analog front-end coupled to the baseband unit;  
the second software-defined radio being certified for operation by  
authenticating a third ID received at the baseband unit with a fourth ID stored at  
the second analog front end.

17. A network comprising:  
a first client computer;  
a transmission medium coupled to the first client computer; and  
a server computer, coupled to the transmission medium, that transmits  
first identification (ID) data to the first client computer upon receiving a request  
from the client computer to certify a first software-defined radio implemented at  
the first client computer.

1 18. The network of claim 17 further comprising a second client computer  
2 coupled to the transmission medium, the server computer transmits the first ID  
3 data to the second client computer upon receiving a request from the second  
4 client computer to certify the first software-defined radio implemented at the  
5 second client computer.

1 19. The network of claim 17 wherein the server computer transmits second ID  
2 data to the first client computer upon receiving a request from the first client  
3 computer to certify a second software-defined radio implemented at the first  
4 client computer.

1 20. A method comprising:  
2 receiving a request at a server computer to certify a first software-defined  
3 radio implemented at a first client computer; and  
4 transmitting first identification (ID) data corresponding to the first  
5 software-defined radio to the first client computer.

1 21. The method of claim 21 further comprising transmitting a radio protocol  
2 corresponding to first software-defined radio to the to the first client.

1 22. The method of claim 20 further comprising:  
2 receiving a request at the server computer to certify the first software-  
3 defined radio implemented at a second client computer; and  
4 transmitting the first ID data to the second client computer.

1 23. The method of claim 20 further comprising:  
2 receiving a request at the server computer to certify a second software-  
3 defined radio implemented at the first client computer; and  
4 transmitting second ID data corresponding to the second software-defined

[illegible]